

VERMONT ENVIRONMENTAL BOARD
10 V.S.A. §§ 6001- 6092

RE: Alpine Stone Corporation,
ADA Chester Corporation,
and Ugo Quazzo

Land Use Permit
Application #2S1103-EB

FINDINGS OF FACT, CONCLUSIONS OF LAW, AND ORDER

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i. SUMMARY OF DECISION

This appeal was filed by Alpine Stone Corporation, ADA Chester Corporation and Ugo Quazzo (collectively, Permittees) from Land Use Permit #2S1103 (Permit) and supporting Findings of Fact, Conclusions of Law, and Order (Decision) issued by the District 2 Environmental Commission. As set forth below, the Vermont Environmental Board (Board) concludes that the Project conforms with Criteria 5, 8, 8(A), 9(E) and 10. Accordingly, the Board issues Land Use Permit #2S1103-EB.

I. PROCEDURAL SUMMARY

On August 15, 2000, the District 2 Environmental Commission (Commission) issued the Permit and Decision to the Permittees. The Permit authorizes the previously unpermitted extraction and removal of 5,000 to 10,000 tons of mica schist stone, but specifically prohibits any additional extraction and/or removal of material. The project is a stone quarry on 644 acres located on Route 35 in Chester, Vermont (Project).

On September 14, 2000, Permittees filed this appeal with the Board from the Permit and Decision, alleging that the Commission erred in its conclusions concerning the grant of party status to two individuals; the lands over which the Commission asserted jurisdiction and imposed restrictions relative to the Permit; whether certain individuals and entities are necessary co-applicants; and 10 V.S.A. § 6086(a)(5), (8), (8)(A), (9)(E), and (10) (Criteria 5, 8, 8(A), 9(E) and 10).

On October 23, 2000, Board Chair Marcy Harding convened a Prehearing Conference with the following participants:

Permittees by C. Daniel Hershenson, Esq.
Agency of Natural Resources (ANR) by Elizabeth Lord
Whitney Ellsworth and Joshua Ellsworth (Ellsworths) by Seth Bongartz, Esq.

Mary Milanesi was not able to attend the Prehearing Conference but informed the Board by letter that she wished to remain as a party to this matter.

On October 26, 2000, Permittees filed a Motion to Stay Condition #6 of the Permit.

On November 8, 2000, Chair Harding issued a Prehearing Conference Report and Order (PHCRO), which identified several preliminary issues, among other things. The PHCRO gave Mary Milanesi until December 13, 2000, to file a petition for Environmental Board Rule (EBR) 14(A) and/or 14(B) party status on Criterion 8. No such petition was filed, and Mary Milanesi is not a party in this matter.

On November 17, 2000, the Board issued a Memorandum of Decision granting Permittees' Motion to Stay Permit Condition #6.

The Board deliberated on preliminary issues on January 24, 2001, and issued a Memorandum of Decision on preliminary issues on February 9, 2001.

On April 30, 2001, Permittees filed a "Motion for Dismissal for Lack of Jurisdiction."

On May 9, 2001, an Administrative Hearing Panel of the Board (Panel) convened a public hearing in this matter. The Panel heard evidence from Permittees, the Ellsworths, and ANR, and conducted a site visit. The hearing was adjourned to another date.

On June 6, 2001, the Panel completed the hearing in this matter. After recessing the hearing, the Panel deliberated on June 6, July 2, October 17, and December 12, 2001. The Panel's proposed decision was issued on December 20, 2001.

On January 10, 2002, Permittees filed objections to the Panel's decision. The Board deliberated on January 16, 2002 and January 30, 2002.

Based upon a thorough review of the record, related argument, and the parties' proposed findings of fact and conclusions of law, the Board declared the record complete and adjourned. The matter is now ready for decision.

II. ISSUES

- A. Whether, pursuant to 10 V.S.A. § 6086(a)(5), the Project will cause unreasonable congestion or unsafe conditions with respect to the use of the highways.
- B. Whether, pursuant to 10 V.S.A. § 6086(a)(8) the Project will have an undue adverse effect on aesthetics.
- C. Whether, pursuant to 10 V.S.A. § 6086(a)(8)(A)(i)-(iii), the project will destroy or significantly imperil necessary wildlife habitat, and if it will, whether, (i) the economic social, cultural, recreational or other benefit of the public from the project will not out-weigh the economic, environmental, or recreational loss to the public from the destruction or imperilment of the habitat, or (ii) all feasible and reasonable means of preventing or lessening the destruction, diminution, or imperilment of the habitat or species have not been, or will not continue to be applied, or (iii) a reasonable acceptable alternative site is owned or controlled by the applicant which would allow the project to fulfill its intended purpose.

- D. Whether, pursuant to 10 V.S.A. § 6086(a)(9)(E), extraction or processing of mineral and earth resources will have an unduly harmful impact upon the environment or surrounding land uses and development.
- E. Whether, pursuant to 10 V.S.A. § 6086(a)(10), the project is in conformance with the Southern Windsor County Regional Plan.
- F. Whether Conditions 8 and 9 of the Permit, which impose restrictions upon the lands owned by ADA Chester Corporation and Ugo Quazzo, are authorized by 10 V.S.A. § 6086(c).

III. OFFICIAL NOTICE

In the PHCRO Chair Harding proposed that the Board take official notice, pursuant to 3 V.S.A. § 810(4), "of the Commission's files relating to this matter, including but not limited to Jurisdictional Opinions #2-121 (issued September 15, 1999) and #2-121.1 (issued November 23, 1999)" (JOs). No party objected and notice was taken of the JOs, for the limited purpose of deciding preliminary issues. During the second prehearing conference, it was agreed that the Board would also take official notice of the application in this matter, specifically, the documents relevant to Applicants' reclamation plans. Again, no party objected, and the Board has taken official notice of these documents only. The Board has not taken official notice of exhibits or documents from the Commission's files, other than the application and attachments, and the two JOs. *Cf., In re White*, 12 Vt.L.W. 121, 124 (Jun. 1, 2001) (Board took official notice of entire district commission file, including all exhibits).

Under 3 V.S.A. § 810(4), notice may be taken of judicially cognizable facts in contested cases. An Act 250 appeal is a contested case under the Administrative Procedures Act. 3 V.S.A. § 801(b)(2); see also, 10 V.S.A. § 6007(c). Pursuant to the Vermont Rules of Evidence, "[a] judicially noticed fact must be one not subject to reasonable dispute in that it is . . . capable of accurate and ready determination by resort to sources whose accuracy cannot reasonably be questioned." V.R.E. 201(b); see also, 3 V.S.A. § 810(1) (rules of evidence apply in contested cases); *In re Handy*, 144 Vt. 610, 612 (1984). Official notice may be taken whether requested or not and may be done at any stage of the proceeding. 3 V.S.A. § 810(4); V.R.E. 201(c) and (f).

IV. FINDINGS OF FACT¹

A. General Findings

1. Permittees seek a land use permit for previous and proposed quarrying of stone on approximately 644 acres of involved land adjacent to Vermont Route 35 in the so-called Grafton Gulf area of Chester, Vermont (the Project).
2. Permittees propose to quarry up to 4,000 tons of mica schist stone per year, up to 80 tons, or approximately 4 dump truck loads, of stone per day of operation. The quarry would operate for 7-8 days per month between May 15 and December 15 each year, for up to 50 days per year, for a maximum of 25 years. Total extraction over the life of the quarry would not exceed 100,000 tons.

B. Criterion 5 (Traffic Safety and Congestion)

3. The Project site is located adjacent to a two-lane, paved, state-aid highway known as Vermont Route 35 (Route 35), also known as the Grafton Road. The speed limit on Route 35 is 50 miles per hour (mph).
4. The quarry access road will be approximately 250 feet long from Route 35 to the staging area. It is an existing curb cut, approximately 50 feet wide.
5. The average daily traffic for the segment of Route 35 that runs from the Grafton town line to Popple Dungeon Road, which includes the portion of Route 35 adjacent to the Project site, is approximately 660 vehicles per day.
6. The Project will generate approximately 10 to 12 one-way vehicle trips per day of operation. This would consist of the trips generated by the two employees and the four dump truck trips per day. Assuming that the Project generates 12 vehicle trips per day, the stone quarry operation would generate the equivalent of less than 2% of the average daily traffic on this segment of Route 35.

¹

To the extent that any proposed findings of fact are included within, they are granted; otherwise, they are denied. See *Secretary, Agency of Natural Resources v. Upper Valley Regional Landfill Corp.*, 167 Vt. 228, 241-242 (1997); *Petition of Village of Hardwick Electric Department*, 143 Vt. 437, 445 (1983). Findings of fact relevant to more than one criterion are not repeated and are incorporated into subsequent criteria as necessary to support the Conclusions of Law.

7. On February 23, 2001, the Town Manager for the Town of Chester issued a letter to Alpine Stone's consultant, Gary Rapanotti, advising that:

In response to your request for a Highway Access Permit for Alpine Stone Corporation on VT Route 35, the existing driveway pre-dates Chester Zoning Regulations. Therefore, an Access Permit is not required for that property. The driveway does, however, meet the Town of Chester's construction standards.

8. On February 27, 2001, the Chief of Police for the Town of Chester issued a letter to Gary Rapanotti advising that, based on the Chester Police Department's records, the Department has investigated two accidents on Route 35 in the area of the proposed quarry in the past 5 years. This results in an accident rate of 0.4 investigated accidents per year.
9. Sight distances from the Project driveway to the north and south along Route 35 are approximately 500 feet in each direction.

C. Criterion 8 (Aesthetics)

10. The quarry is located in a long, narrow valley characterized by dense forest and hilly terrain. Much of the Project site around the quarry is forested, except for the steep rocky ledge immediately to the west of the quarry. Except for the site of the quarry, the area is undeveloped and in its natural state.
11. The visual character of the area surrounding the quarry site is insular. The combination of narrow valley with steep wooded hills along both sides of Route 35, and a general lack of openness, all contribute to this character.
12. The general uniformity of the valley, with the eastern side being predominantly coniferous woods and the western side being mixed deciduous and coniferous woods, also contributes to this sense of enclosure. At the quarry site, the trees and vegetative cover are much less dense than the surrounding hillsides.
13. The area surrounding the Project site is moderately steep, particularly on the western side of Route 35, rising from an elevation of approximately 970 feet above sea level at the roadway near the quarry entrance, to approximately 1,240 feet above sea level at the highest point of the rock ledge to the west.

14. The quarry site consists of a pile of large, mica schist rocks at the base of a steep rock ledge, and appears to be the site of an ancient landslide. The large, mica schist rocks are concentrated in an area approximately 200 feet wide by 150 feet long, and approximately 10 to 20 feet deep. The rocks are in the 1 to 3 foot size range and larger, and are generally flat or rectangular.
15. The ledge to the west of the quarry extends for approximately 400 feet, parallel to Route 35. The ledge is somewhat less steep to the immediate west of the quarry than it is elsewhere along the length of Route 35, consistent with the apparent historical landslide on the Project site.
16. The top of the ledge to the west of the quarry is forested with mixed hard and softwoods and contains large groves of hemlock.
17. Route 35 is a narrow, rural road connecting Chester (from the north) to Grafton (to the south).
18. The existing quarry is located about 2,000 feet south of Popple Dungeon Road, and near the Chester/Grafton town line. There are no hiking trails, nature trails or public recreational facilities in the areas adjacent to the quarry. The nearest house is over 2,500 feet away and has no view of the quarry.
19. The quarry would be visible to anyone traveling along Route 35 by car, bicycle or foot. The quarry will impact an area of land approximately 270 feet long, parallel to but away from Route 35.
20. The view of the quarry from a vehicle traveling along Route 35 at 50 mph would last approximately 3 seconds if the vehicle is heading north, and approximately 8 seconds if the vehicle is heading south.
21. For observers coming from the south heading north, the view of the existing quarry is somewhat obscured by the wooded hillside, the increasing grade, and the existing stone wall.
22. Observers coming from the north heading south approach at a similar elevation and can see up the quarry access road to the quarry site.
23. A rugged boulder or rock retaining wall will be built on the Project site along Route 35. It will be backfilled with soil and planted with trees and vegetation similar to those existing on the site. The wall and plantings will create a buffer between Route 35 and the quarry.
24. The proposed rock or boulder screening wall and vegetative plantings will help to minimize the aesthetic impact of the exposed areas.

25. The rocks next to the existing quarry are dark in color, covered with dirt, decomposed vegetation, and some moss. In places, small shrubs and trees have grown over the rocks.
26. The rocks exposed by quarrying activity are light in color, with no vegetation on them.
27. Permittees will use the older, darker-colored stone from the quarry site to build the rock wall near Route 35.
28. The Project would have a maximum of two employees at the site at any time.
29. The stone would be removed directly from the quarry site, with no holding area for storage of quarried stone prior to trucking off-site and no processing of stone on the Project site.
30. There would be removal of some trees and vegetation from the Project site, but only in the quarry area. The remaining lands will remain forested.
31. The sloped face at the back of the quarry is expected to be nearly 70 feet high at the end of the Project's operating period.
32. There is a logging road on the east side of Route 35 near the intersection with Popple Dungeon Road. However, there is no logging activity visible from Route 35 in the immediate vicinity and viewshed of the Project site.
33. The proposed quarry would alter the landscape in the area but would not include buildings or structures other than the rock wall that would dominate visually. The proposed excavated areas would expose lighter-colored rock with no vegetation, and will further thin the tree and vegetative cover on the proposed quarry site.
34. The area of the Project site has not been designated as a scenic corridor by the State of Vermont, the County of Windsor, or the Town of Chester. Route 35 is not designated as a scenic roadway, and it has not been nominated for such designation.
35. The Town of Chester, Vermont is a member of the Southern Windsor County Regional Planning Commission. On July 15, 1997, the Southern Windsor County Regional Planning Commission adopted the Southern Windsor County Regional Plan (Regional Plan).

36. The area of the Project site is not identified as a scenic resource area in the Regional Plan, and it is not identified as a recreational resource or lands which should be set aside for conservation in the future.
37. The Town of Chester, Vermont has a duly adopted town plan which was adopted on October 2, 1996 and recorded with the Town Clerk on November 7, 1996 (Town Plan).
38. The Town of Chester has zoning regulations which were adopted March 4, 1975 and which have been amended from time to time, with the last amendment effective February 22, 1998 (Zoning Regulations).
39. The quarry is in an area zoned R-80 under the Zoning Regulations. A quarry is not a permitted use in the R-80 District, but may be permitted as a conditional use. Zoning Regulations, §§ 6.2 (permitted uses) and 6.2.1 (conditional uses). The Zoning Regulations provide for a 50-foot setback. Zoning Regulations, § 6.2.2.
40. The Zoning Regulations provide that the Planning Commission may conduct a site plan review as a prerequisite to the approval of any use other than one- and two-family dwellings and accessory structures and agricultural or forest uses. The Zoning Regulations require Planning Commission approval of site plans unless the use is to be established in an existing structure and no further development is necessary or proposed. Zoning Regulations, § 4.
41. On April 3, 2000, the Town of Chester Planning Commission, in site plan review #292, granted to Alpine Stone Corporation site plan approval for a stone removal quarry on the lands owned by Alpine Stone Corporation located adjacent to Route 35. In rendering its decision, pursuant to Section 4.1 of the Town of Chester Zoning Regulations, the Planning Commission considered and approved the adequacy of surface drainage facilities, screening and setbacks in regard to achieving maximum compatibility and protection of adjacent property, adequacy of landscaping, adequacy of traffic safety and circulation and the maximum safety of vehicular circulation between the site and the street network. (Zoning Regulations, § 4.1)
42. The Regional Plan, Town Plan and Zoning Regulations do not prohibit quarrying activities or mining.
43. The Regional Plan lists Chester as a town in which granite, marble and soapstone were mined historically, and encourages minimization of aesthetic impacts as well as the full reclamation, revegetation and rehabilitation for aesthetic and other purposes. Regional Plan at 73, Mineral Resource Policies 2 and 3.

44. The Town Plan states that the "mining of talc and other mineral deposits . . . within the Town of Chester should be encouraged," subject to reasonable safeguards against "the potential nuisances and hazard of these activities." Town Plan, at 6 § 7.5 (Mineral Deposits).
45. The Zoning Regulations provide for Planning Commission review of quarry plans, a 100-foot setback, and require quarries to be covered with at least four inches of topsoil, seeded with a suitable cover crop, except when ledge rock is exposed. Zoning Regulations at 8-9 §§ 3.15-3.16. The Planning Commission approved this Project, and the Project is permitted in a manner consistent with the Zoning Regulations.
46. On April 27, 2000, the Town of Chester Zoning Board of Adjustment, in conditional use application #349, granted to Alpine Stone Corporation a zoning permit to open and operate a stone quarry on the lands owned by Alpine Stone Corporation adjacent to Route 35.
47. In rendering its decision, the Zoning Board of Adjustment found that Section 7.5 of the Chester Town Plan encouraged the mining of mineral deposits within the Town of Chester. The Zoning Board of Adjustment further found that the proposed stone removal project would not adversely affect the character of the area in which it is located, nor would it adversely affect traffic on roads and highways. Finally, the Zoning Board of Adjustment specifically found that the stone removal project was in full compliance with the Town of Chester Zoning Regulations then in effect, which Zoning Regulations implement the Town of Chester Town Plan.
48. In its Conditional Use Determination, the Zoning Board of Adjustment set the following conditions on the Project:
 1. The project will be carried out as presented by the Applicant and is subject to 100-foot setbacks.
 2. Chester Planning Commission Site Plan Review #292 is incorporated into this Zoning Board of Adjustment decision including the limits set forth in its findings and conditions.
 3. The Applicant will obtain all needed and/or required State and Federal permits.
 4. All the parameters as to time, frequency, quantities, and methods of operation testified to by the Applicant's Agent will be conformed to.

5. All parking (including loading and unloading of heavy equipment from tag-along trailers) will be on-site and off-street.
 6. At all times when hydraulic equipment is on-site, a sufficient supply of spill control absorbents (e.g.: 3M brand model #T-280 booms) must be immediately available on-site to contain and control any accidental spills.
 7. No explosives are to be stored on-site overnight.
49. Permittees will comply with the conditions in the Zoning Board of Adjustment's Conditional Use Determination. With respect to Condition #7, the Board notes that there should be no need for explosives to be on-site at any time because there will be no blasting at the Project site.
 50. Neither the Permittees' lands nor any lands located adjacent to it are identified on any scenic resources map, wildlife protection map, town recreation map or any other map or document in a manner which would prohibit or limit the site's use as a stone quarry.

Noise

51. Permittees will use only two pieces of equipment at the Project site: a backhoe or excavator, similar in size to a 32,000 pound Samsung SE 130, and a dump truck to haul the stone. The dump truck will be equipped with a radar backup alarm, which only sounds when it detects something behind the truck. There will be no blasting at the site. There will be a drill, with a bit between 3 and 4 inches in diameter, mounted on the backhoe or excavator.
52. The Leq is the equivalent sound level. This is the average sound pressure over a specified period of time and tends to weight the higher decibel (dB) levels. Leq does not indicate the level of the loudest sound, or Lmax. The L10 and L90 are the 10th and 90th percentile sound levels, respectively. The L10 represents the sound level exceeded 10 percent of the time, and the L90 represents the sound level exceeded 90 percent of the time. Since the L90 represents the quieter portion of a measurement period (90% of the observations exceed it), it is often considered the "background" level. The Leq is weighted by the higher impulse noises, such as when the backhoe or excavator bucket hits the rocks, so it is used to measure the average level of excavation noise.
53. Permittees retained the services of Kenneth Kaliski, an acoustical consultant with the Resource Systems Group. Mr. Kaliski measured noise at the site on Tuesday, February 3, 2001. On that date, Permittees set up a 32,000 pound Samsung SE 130 at the quarry site, which is similar in size to the backhoe or excavator that Permittees will use at the quarry. Mr. Kaliski took sound

measurements near the operating equipment and at nearby homes while the Samsung SE 130 was operating and while it was turned off. Sound levels were measured with a Bruel and Kjaer 2236 Type I sound level meter, mounted on a tripod and fitted with a windscreen. The meter was calibrated with a Bruel and Kjaer 4231 calibrator. The temperature was 40 degrees Fahrenheit and winds were light. While operating, the Samsung SE 130 was continually scraping, breaking up, picking up, and dropping stones.

54. Mr. Kaliski's monitoring showed that the noise from the motor of the Samsung SE 130 is approximately 62 A-weighted decibels (dB(A)) L90 as heard from fifty feet away. This means that the noise from the Samsung SE 130 motor exceeded 62 dB(A) 90 percent of the time.
55. Noise from banging and scraping of rocks consistently generated noise levels between 75 and 85 dB(A) at 50 feet.
56. Mr. Kaliski's monitor results are set forth below:

Source	L90	L10	Leq	Notes
50 feet from operating backhoe	62	77	74	Fast response
Closest residence to south, 50' from Route 35, on Ellsworth Rd.	27	50	49	Fast response, backhoe operating but inaudible
0.6 miles south of quarry on Route 35	23	30	29	Fast response, bucket hitting rocks audible, but engine noise not audible
Closest residence to north, 0.6 miles from Route 35, on Popple Dungeon Road	33	41	40	Fast response, backhoe operating but not audible, wind noise dominant
Background level at the quarry, 50' from Route 35	26.5	49	51	Slow response, 50 minute measurement period

57. The backhoe will not be readily audible at the nearest residences during most meteorological conditions, based on the background sound levels measured at the nearest residences.
58. Mr. Kaliski analyzed the noise from a drill on the excavator. He determined that a drill mounted on an excavator, with a bit 3 or 4 inches in diameter, would likely increase the peak sound levels at the source by approximately 10 dB(A).

59. In addition to the sound level monitoring above, Mr. Kaliski also ran an outdoor sound propagation model to simulate the impacts of the quarry under normal operating conditions. The following lists the maximum number of pieces of equipment that could be running at the quarry, with the sound level rating for each, presumably in dB(A), at 50 feet:
- | | | |
|---|----------------------------|----|
| 1 | Drill mounted to backhoe | 90 |
| 1 | Backhoe quarrying rocks | 79 |
| 1 | Backup alarm on dump truck | 85 |
60. Mr. Kaliski modeled the impacts of the quarrying operation using the NTerrain modeling software developed by Resource Systems Group. NTerrain models the propagation of sound and takes into account attenuation due to spreading, atmospheric absorption, vegetation, terrain, and man-made barriers. The inputs to the model make the following assumptions:
- The drilling and excavation at the quarry are on the surface; and
 - The drilling and backhoe operations of the quarry occur at the highest point in the quarry.
61. For purposes of this modeling, receptors were placed at 200-meter increments in the area around the quarry.
62. Noise levels will not exceed 55 dB(A) at nearby residences. The closest residences will experience sound levels below 20 dB(A) during normal operations, given current conditions which include dense forest on much of the Project site and adjacent land between the quarry and nearby residences. These noise levels are at or below measured background levels.
63. Sound levels drop off quickly at the forested area beyond the western ridge, as a result of the high ridge. Sound levels from the backhoe drop off below 25 dB(A) at 625 feet west of the quarry, and sound levels from drilling drop off below 25 dB(A) at 890 feet west of the quarry.
64. The sound from backup alarms will occur only when a dump truck is backing up with something behind the truck to set off the radar-activated alarm, generally when the truck backs up to pick up a load. This is expected to occur less than 4 minutes per day. As with other sources, the sound level from the backup alarms will decline below 25 dB(A) at all of the closest residences and just beyond the western ridge line.
65. To keep noise levels at a minimum, Mr. Kaliski recommended and Permittees agreed to the following operating conditions:

- a. Permittees will establish a plan to maintain mufflers on all diesel equipment.
 - b. The area around the quarry should be kept densely forested to the maximum extent possible.
 - c. The backhoe will be equipped with "radar" or equivalent backup alarms that are activated only when an object is detected behind the equipment when it is backing up.
 - d. Operations will begin at 8:00 a.m., and the quarry will not operate on weekends or federal holidays.
66. Based on the Permittees' suggestions intended to minimize noise, and other findings, the Board finds that the following additional conditions on quarry operations are appropriate:
- a. No structures will be erected on the site.
 - b. No utility lines or other utilities will be installed at the site.
 - c. The site will be protected with an existing vegetated buffer which surrounds the site and which will be supplemented by additional plantings between Route 35 and the quarry access road.
 - d. The stone removal area will be limited to an area of approximately one acre.
 - e. Permittees will remove a maximum of 80 tons (four dump truck loads) of stone per day during the operating season and a maximum of 4,000 tons per season.
 - f. Based upon these limited stone removal allocations, the stone removal operation will only operate for approximately fifty (50) days per year.
 - g. Permittees will only operate from May 1st to December 15th of each year.
 - h. Quarry operations will be limited to Monday through Friday from 8:00 a.m. to 4:30 p.m, with no operation on federal holidays.
 - i. The quarry would require the use of only two pieces of equipment: an excavator or backhoe to lift the stone, and a dump truck to remove the stone from the site for delivery to landscapers and homeowners.
 - j. There will be no lighting or signage on the site.
 - k. There will be no utility poles, street lights or refuse storage areas or receptacles on the site.

D. Criterion 8(A) (Necessary Wildlife Habitat)

General Wildlife Habitat

67. The area within 1/4 mile of the proposed quarry site consists of mixed forests, rolling hills, cliffs and stream associated wetlands. The forested hills and sloping hillsides with cliffs provide habitat for many species of wildlife.

68. The area sloping westward from the plateau on top of the rise near the proposed quarry consists of fairly open, forested habitat and wetlands. The wetlands provide some spruce and balsam habitat, as well as open water beaver-flows, streams, dense shrubs and saplings and additional landscape diversity, such as ledges, downed materials and berry producing shrubs. The areas adjacent to the wetlands provide cover and security, while the wetlands themselves provide water, fish, and food for many species. Among those species taking advantage of these features are mink, otter, raccoons, white-tailed deer, moose, bobcat, waterfowl, kingfishers, hawks and some owls.
69. The ledges on the west side of the valley are heavily used by wildlife. There is considerable evidence, such as scat, digging and scraping, that these ledges are used extensively by porcupine for denning. Porcupine are an important part of various predators' diets, including fisher and bobcats.
70. In addition to porcupine, many small mammals use the ledges as cover as evidenced by the presence of scat. These mammals, in turn, provide food for a variety of predators in the area.
71. On the west side of the valley (in which the Project is proposed) there are, in addition to eastern hemlocks, extensive hardwoods, mixed conifer/hardwood forest with sugar maples, northern red oak, beech, white ash, basswood, yellow birches and various conifer species. Most of the western side of the valley has a relatively open understory due to the presence of a canopy consisting of eastern hemlock and hardwood trees.
72. Many species of wildlife rely upon ponds, streams, or wetlands for sustenance, habitat, food and water. Vegetation in these areas can supply both food and habitat, and smaller animals using the wetlands can supply a prey base.
73. Approximately 300-400 yards to the west of Route 35, the plateau at the top of the ridge contains a series of beaver dams. There are three distinct beaver ponds, totaling 2-3 acres in size. The edges of the ponds have spawned dense seedlings and saplings of conifers.
74. The beaver-associated wetlands at the plateau provide the majority of open water habitat in the area.

Deer Habitat

75. Deer winter shelter is prominent to the west, north and east of the quarry site. The site of the quarry is not deer winter shelter and does not offer much accessible browse for deer.

76. The deer winter shelter to the west of the quarry and westerly of the ridge is widely used by white-tailed deer, as evidenced by the diggings for mast, and the presence of dozens of piles of scat. As the Permittees' expert, Jeff Wallin, testified, this area is necessary wildlife habitat.
77. The Project will not entail any timber removal or other physical disturbance in or around this necessary wildlife habitat. To the contrary, Permittees will keep the land around the quarry in its natural state and densely forested. The dense forestation and the rock ridge to the immediate west of the quarry also serve to buffer noise from the quarry operations. Quarry operations must cease by December 15th of each year, so there would be minimal overlap between the time the deer use the wintering area and the time of quarry operations.
78. The Project will not have a significant effect on the deer wintering habitat.

Bobcat

79. The extensive area to the west of the site and westerly of the ridge, is excellent habitat for the North American bobcat, *felis rufus* or *lynx rufus*, as it provides life requisites for all seasons. The variety of habitat types (softwood, hardwood; mature cover, early successional brushy stage growth) support an excellent prey base for the bobcat throughout the year.
80. Bobcat populations are generally widely disbursed and of low density within the available habitat. Bobcats are generally carnivorous with a varied diet and will roam within their territory for breeding and feeding opportunities. Bobcat territorial ranges can cover as much as 50 square miles.
81. Bobcats are stealthy, solitary and highly territorial animals. They avoid contact with other non-prey species, including other bobcats (except during mating season), predators and humans.
82. Bobcats are nocturnal and generally rest during the day.
83. Habitat elements that are generally found in areas of relatively high bobcat abundance (core or source areas where bobcat reproduction exceeds mortality and the young migrate to less valuable habitat where the diverse elements of bobcat habitat may not be found in close proximity to each other) include:
- the availability of water and wetlands
 - cliffs and rock outcrops
 - mixed conifer/hardwood forest, and
 - proximity to high populations of prey, especially rabbits and deer.
84. All of these elements are found near the proposed quarry.

85. The area located within a one-mile range of the proposed quarry site is excellent bobcat habitat. This area's diverse landscape offers, in close juxtaposition, the elements identified by wildlife biologists as key, or preferred, habitat elements for the North American Bobcat, including ledgy areas, mixed forest (especially Eastern Hemlock), a diverse supply of preferred food items, and wetlands and open water sources.
86. The presence of bobcat trails, bobcat urine and scat indicates that this area is utilized by bobcat.
87. Such an area can be referred to as "core habitat," meaning a place where all the various needs of the animal are found in close proximity. As such, through a positive effect on growth and survival, the "concentrated" area adds to the general, or regional populations of an animal. In this case, the Grafton Gulf serves as "core habitat" for bobcats in the general area.
88. Bobcat day bed sites, urine, and scat, were found on top of the ridge just west of the quarry. Inside the ledge facing the quarry near the summit, day beds with body imprints in the leaves were found, as well as holes in the ledge with snow trampling indicating possible use by bobcats as dens. There is no question that one or two bobcats utilize the ledge above the quarry site as part of their winter home range.
89. One or more bobcats may have used the ledge as a den, at least during January and February.
90. In order for potential den sites to be viable as dens they must be within easy range of prey.
91. The life requisites for bobcats are adequate cover, food, and den sites.
92. The rocks and cliffs on the western side of the Gulf, which overlook the site of the proposed quarry, offer the den sites portion of the life requisites.
93. The cliffs and surrounding forest vegetation provide the cover portion of the life requisites.
94. Bobcats' preferred food sources are deer, snowshoe hare and cottontail rabbits. They also prey on rodents, ruffed grouse and grey and red squirrels.
95. Within close proximity to the crevasses of the cliffs, the third element of life requisites, food source, is readily available. There is a deeryard on the east side of the Gulf, across Route 35 from the site of the quarry, which has been

mapped by ANR, as well as deer habitat to the west of the quarry. This deeryard, combined with the wetland area over the top of the western ridge, provides the full panoply of preferred food sources, including deer, snowshoe hare, cottontail rabbits, porcupine, red and grey squirrels, many types of rodents, and ruffed grouse.

96. Bobcat tracks in the Gulf area are most concentrated in and around the rocky cliffs above the site of the proposed quarry.
97. Because New England is the northern edge of bobcat habitat, and because winter conditions are more difficult for bobcat survival, lower elevation cliffs and dens are particularly important to northern bobcats such as those found in Vermont. These ledges provide shelter from exposure.
98. The cliffs of the Grafton Gulf are approximately 1,200 feet in elevation. They are warmer than higher elevation cliffs and ledges, but high enough to provide the sightlines to allow bobcats to scan for threats and prey. Additionally, they provide southern exposure and, thus, a warmer form of shelter. Also, they are generally free from human disturbance.
99. The ledge area is approximately 300 feet above and to the west of the quarry.
100. Route 35 is both lower in elevation and a considerable distance from the ledge above the quarry. It is also not a highly traveled road. The site where most bobcat activity has been identified near the top of the ledges is protected visually from Route 35. Also, there are numerous trails and sign indicating that bobcats cross Route 35, probably to access the mapped deeryard on the eastern side of the Gulf.
101. Bobcats use rocky, ledgy areas extensively for escape cover, day retreats, natal den sites, courting sites, raising their young, and thermal refugia during winter months. Bobcat are also known to use fallen trees and other non-ledgy areas for denning.
102. The terrain of the quarry and ledge above it is different from that of the surrounding area, apparently due to the ancient rockslide. A series of crevasses is located in the ledge above the site of the proposed quarry operation. These crevasses could serve as dens for one or more bobcats.
103. Bobcats use these crevasses as the hub from which they venture to catch prey. The closer in proximity to the hub the prey is available, the better the chance of bobcat survival through the winter. What might otherwise be excellent denning,

resting sources are useless without a food source within reasonable proximity. Food is readily available in the area around the rock ledge near the quarry.

104. The cliffs and dens above the site of the proposed quarry offer bobcats shelter in close proximity to food sources. Other suitable bobcat den sites are available in the vicinity of the Project, in addition to the ledge to the west of the quarry. The ledge nearest the quarry offers unique denning opportunities to one or two bobcats.
105. ANR is in the process of studying bobcat habitat in the state. ANR, in cooperation with the Brattleboro Regional Planning Commission, has mapped steep, relatively inaccessible ledgy areas as potential bobcat denning sites in southern Vermont. The ledge directly to the west of the quarry is mapped by ANR as potential suitable bobcat denning habitat. However, ANR has not completed extensive research on, or final mapping of, bobcat habitat in the state, as it has for deer and bear habitat.
106. There is no conclusive scientific evidence that the same relationship holds true for bobcat populations and ledge habitats as is true for deer and deer wintering areas. The availability of deer wintering habitat affects both long-term survival and reproduction of deer. Although the energy drain resulting from the loss of such habitat may not kill the deer, it would most likely cause a reduction in survivability over the long term. This is due to a variety of related factors such as loss of fat reserves due to increased exposure, higher metabolic rate due to increased disturbance, and increased predation due to deeper snow. No similar energy drain or related effects of habitat loss have been shown specifically with respect to bobcats.
107. It is the opinion of ANR biologist Kim Royar that "the direct and indirect impacts of the project pose a risk to the long-term survivability of the bobcats using the site."
108. Kim Royar also testified that: "I am not able to conclusively state that [ledge] habitat is decisive to the survival of the [bobcat] species because very little scientific information exists on the subject."
109. The state of research on bobcats in Vermont is such that there is no conclusive data on whether and to what degree bobcats prefer ledge over other potential den sites, or whether ledge habitat offers reproductive benefits.
110. Bobcats typically breed in late February to early March, prior to quarry operations. The gestation period for bobcats is approximately 62 days, with kittens born in late April - early May. Bobcat kittens are not weaned before two months after birth, or late June - early July. Permittees plan to use a backhoe or

excavator, drill attachment, and a large diesel dump truck with a radar-equipped backup alarm, in connection with the operation of the quarry. The Project will not disturb the ledge physically, but the operation will generate loud and unpredictable noises.

111. Human disturbance, especially unpredictable, loud noises can lead to various physiological responses by wildlife in general, such as increased heart rate, increased body temperature, and reduced blood flow to skin and digestive organs. The type and severity of physiological impacts vary with the intensity of disturbance, season, individual variations, access to escape cover, and other factors. Continued disturbances may cause individual animals to use up valuable energy and be adversely impacted.
112. There is no data on the effect of noise on bobcats, and information on the ability of bobcats to adapt to human disturbance is conflicting.
113. Bobcats use the ledge and surrounding area as habitat, despite the presence of Route 35 and the traffic thereon, but it is not known whether bobcats can adapt to the noise of heavy machinery. The equipment which will be used at the quarry (backhoe or excavator, drill, and diesel dump truck equipped with a backup alarm) will be louder and more shrill in nature than cars and trucks on Route 35.

E. Criterion 9(E) (Extraction of Earth Resources)

114. When quarrying operations cease, after 25 years, the Permittees will replant the road cut and other areas disturbed by the Project.
115. Unlike aggregate quarries or granite quarries, the removal of the loose stone will not result in a traditional "quarry pit" or quarry hole, but will involve the removal of surface stone to a depth of approximately 10 to 20 feet in an area approximately 200 feet wide by 150 feet long.
116. Permittees have not submitted a comprehensive written reclamation plan. Permittees did, however, state on the application for this Project that mica schist will be quarried on the site and that, to prevent unduly harmful impacts associated with the extraction:

Storm water runoff is being controlled with with [sic] retention ponds; the exposed slopes are being replanted with trees in the stone crevasses and when the quarry is closed, the staging areas and quarry road will be replanted. The access driveway will be sealed off with large stone slabs. Extraction and reclamation plans have been sent to the State Geologist for his comments and recommendations.

117. This statement on the application refers to "Attachment 9D&E - 3." Attachment 9D&E-3 is a letter dated July 29, 1999 from Alan Regier to State Geologist Laurence Becker, referring to enclosed information on the quarry: "I have included a general statement, location map, survey, site plan and answers to the Act 250 Criteria questions."
118. Permittees have proposed the following reclamation plans: replanting and mulching of the quarry, staging areas and the access roadway with evergreen trees, and sealing the access drive with large stone slabs. Stormwater runoff from the site will be controlled with retention ponds.
119. Permittees do not propose to place any funds in escrow to cover the costs of reclamation of the Project site.

F. Criterion 10 (Southern Windsor County Regional Plan)

120. The Southern Windsor County Regional Plan applies to the Project.
121. According to the Regional Plan Land Use Land Cover Map and Future Land Use Map, the Project site is in a "Forest" use area.
122. The Regional Plan describes the "Forest" use area as follows:

Forest resources provide many benefits to the Region. They are valued for their ability to provide wildlife habitat; protect air and water quality; support the regional forestry, forest products, and tourism economies; and provide opportunities for outdoor recreation. They are aesthetically pleasing to residents and visitors alike. The ability of forestland to provide these benefits on a regional level should not be significantly impaired. Development in these areas should be undertaken in ways that protect their value and ensure the continued presence of healthy forest ecosystems in the Region.

Southern Windsor County Regional Plan, at 18.

123. The Regional Plan lists the following "Forest Resources Goals" for forest land use areas:
 1. To achieve and maintain an appropriate balance between forestland uses and other land uses, in the best interests of the environment and regional residents.

2. To maintain or enhance the diversity of forest ecosystems throughout the region.
3. To protect the environmental character and integrity of significant forest resources as identified by local communities.
4. To preserve the integrity of large, privately owned parcels of forested lands.
5. To create jobs related to the forest industry and ensure a consistent supply of forest products through responsible and sustainable forest management practices; and to achieve a balance between the economic gain to be derived from forested lands, and their conservation and protection.

Regional Plan, at 47-48.

124. The Regional Plan sets forth the following Forest Resources Policies:

1. State or federal programs and legislative efforts which protect and enhance the economic, cultural, environmental, and aesthetic values of forestland should be supported.
2. Fragmentation and subdivision of large forested parcels should be discouraged through the use of incentives that make the maintenance of these parcels attractive to landowners.
3. Proposed development that has the potential to cause serious adverse effects to forested lands should not be sited adjacent to forested lands, or should be adequately buffered to protect the forest environment.
4. Vermont's Use Value Appraisal Program, which increases landowner awareness and provides tax equity for forestland owners who create and implement state-approved forest management plans, should be continued and fully supported with state funding.
5. The development, maintenance, and expansion of secondary wood manufacturing should be encouraged.
6. Proposed roads or utilities should be sited at the periphery of productive forestlands, rather than divide the forest.

7. Conservation of forested land through the use of public / private funds for the purchase of development rights, fee simple purchase and other such measures is encouraged.
8. Innovative planning and development techniques, including cluster development, should be used where necessary to protect distinctive forest types, important wildlife habitat, and other natural resources.
9. Collaborative efforts between the Region's member communities, forestland owners, and the appropriate agencies should be supported in order to maintain a balance between recreational, economic, and conservation uses on forested lands.
10. State-adopted Acceptable Management Practices should be used in the harvesting of timber, so as to protect the aesthetic and resource protection values of forestland.

Regional Plan, at 48-49.

125. The Regional Plan sets forth the following Forest Resources Recommendations:
 1. Work with local communities to identify and develop a comprehensive inventory of forested lands, open space, and significant scenic resources throughout the region in order to develop plans for conservation of these resources.
 2. Work with various agencies, including local Conservation Commissions, the Vermont Department of Forests, Parks and Recreation, regional land trusts, the U.S. Forest Service, the U.S. Army Corps of Engineers, etc., to disseminate information related to forest management and develop forest planning policies.
 3. Investigate the value to the region of developing a regional Forest Land Evaluation and Site Assessment (FLESA) and, if determined to be of significant value, initiate the program.
 4. Encourage the location of forest product industries in the Region where such industries would benefit the community and the Region.
 5. Assist in mediation efforts when disputes arise concerning regionally significant forested lands.
 6. Continue to work with, and assist in the development of, local Conservation Commissions.

Regional Plan, at 49.

126. With respect to Mineral Resources, the Regional Plan sets forth the following Goals:
1. To encourage the well-managed extraction and utilization of mineral resources, which provide significant economic benefits to the Region.
 2. To ensure that any extraction or recovery of mineral resources located below or adjacent to the surface of water bodies or impoundments is in accordance with the appropriate state guidelines and any other applicable regulations.
 3. To ensure that methods used for the extraction and utilization of mineral resources consider surrounding development, and minimize any significant negative effects on the environment.

Regional Plan, at 73.

127. The Regional Plan sets forth the following Policies with respect to Mineral Resources:
1. Mineral extraction activity that may significantly degrade the quality and quantity of other land uses is discouraged.
 2. Where mineral extraction is determined to be appropriate, adequate measures to minimize adverse effects on the environment (e.g., visual, noise, water, and air pollution) should be taken.
 3. Full reclamation, revegetation and rehabilitation of mineral extraction sites for safety, health, and aesthetic purposes are encouraged.
 4. Member towns should be encouraged to address both the economic benefits and environmental impacts of mineral resource extraction and recovery in their town plans and implementation documents.

Regional Plan, at 73-74.

128. The Regional Plan sets forth the following Mineral Resource Recommendations:
1. Work with local communities to inventory and map mineral resource sites. The inventory report will be used as a planning tool for future resource extraction to decrease conflicts and ensure land use compatibility.

2. Encourage the implementation of regulatory and nonregulatory techniques in areas of current and potential extraction.
3. Assist with the development of plans and standards for the rehabilitation and reclamation of mineral extraction sites in order to minimize impacts on nearby residents and existing or proposed land uses.

Regional Plan, at 74.

129. The Regional Plan land use/land cover map does not show the Permittees' land as containing significant outdoor recreational areas, park land or wetlands. Instead, it shows that this land, like the vast majority of land in the region, is designated forest land. The map further does not designate this area as a conservation area which is defined on page 19 of the regional plan as lands that possess "outstanding value or potential as wildlife habitat, recreation areas, educational resources, fragile natural areas . . . , or aesthetics resources."
130. The Regional Plan states, at page 46, that forested land comprises approximately 75% to 80% of the total land area in the region. Permittees' land falls within this 75% to 80% land area.
131. The Regional Plan, on page 7, identifies several pertinent "Regional Goals," including:
 1. To achieve a reasonable balance between protection of natural resources and economic development in a way that maximizes the potential for both.
 4. To support the efforts of local member governments and serve as a bridge between local and state planning efforts.
 10. To develop an economic environment that will support the continuation of traditional land use activities, including sustainable agricultural, forestry, manufacturing, and commerce at scales consistent with existing land use patterns of the region.
132. The Southern Windsor County Regional Planning Commission has developed a natural resources map as part of the Regional Plan. The map identifies public lands, public wellhead protection areas, deer wintering areas and areas which are included in the natural heritage inventory. The Permittees' land is not shown on the natural resources map as being located in any of the above-stated areas.
133. At page 86, the Regional Plan discusses the use of bicycles on the regions roadways. The plan states that at present there is only one designated bike route in the region and that route exists in Ludlow along Route 100. The

Regional Plan further states that recreational cyclists on roads in the region create a situation which can be viewed both as a problem and an economic opportunity. The plan further states that "regardless of one's perception of bicycles on the road, it is clear that many obstacles currently exist to including them as a major component of the region's roadway system." Route 35 is not equipped to handle extensive bicycle travel in that it has no designated bicycle way nor even shoulders to accommodate the movement of bicycles in connection with vehicular traffic traveling at 50 mph. In its "transportation recommendations," at page 94 of the Regional Plan, the Regional Planning Commission recommends minimum shoulder widths of 3 feet on high volume roads with high speed limits (50 mph). Route 35 fails to meet the minimum shoulder width recommendation for bicycles as set by the Regional Planning Commission for a roadway with a speed limit of 50 mph.

134. At page 73 of the Regional Plan, in the section entitled "mineral resources", the plan states that "mineral resources, such as sand, gravel, talc, granite, and marble, are necessary commodities in the Southern Windsor County Region for road improvement, building construction, drainage, construction of septic systems, and for export." There are several stone quarries located in the Town of Chester, including an existing stone quarry operating a little over a mile away from Permittees' land.
135. Under the section entitled "mineral resource goals," the Regional Plan states that it is the goal of the plan "to encourage the well managed extraction and utilization of mineral resources which provide significant economic benefits to the region." The Regional Plan further encourages that the method used for the extraction and utilization of such resources consider surrounding development and minimize significant negative impacts on the environment, and the Regional Plan's policies and recommendations encourage member towns, such as Chester, to incorporate protections into their town plans and zoning ordinances.

G. Validity of Permit Conditions

136. The quarry is on a 21.6-acre parcel of land, which the Alpine Stone Corporation purchased in fee simple from Dinah Heller on July 3, 1999, as described on the deed recorded at Book 84, Pages 100-101 of the town of Chester land records, and which is part of the Project's 644 acres of involved land.
137. This 21.6-acre parcel was originally part of a 177-acre parcel ADA Chester Corporation purchased in fee simple from the Russell Knight Trust, First Vermont Bank & Trust Co., Trustees, in 1980, as described on the deed recorded at Book 59, Pages 364-367 of the town of Chester land records.

138. On June 7, 1999, Dinah Heller purchased the 21.6-acre parcel in fee simple from the ADA Chester Corporation, as described in the deed recorded at Book 84, Pages 43-44 of the town of Chester land records.

V. CONCLUSIONS OF LAW

A. Jurisdiction, Scope of Review and Burden of Proof

The Project is subject to Act 250 jurisdiction under 10 V.S.A. § 6001(3) because it involves the construction of improvements for a commercial purpose, or "development" pursuant to EBR 2(A)(2), on more than ten acres of land.

When a party appeals from a Commission determination, the Board provides a "*de novo* hearing on all findings requested by any party that files an appeal or cross-appeal, according to the rules of the board." 10 V.S.A. § 6089(a)(3). Board rules also provide for the *de novo* review of a Commission's findings of fact, conclusions of law, and permit conditions. EBR 40(A). "In a *de novo* proceeding, the Board is required to hear the matter as if there had been no prior proceedings in the district commission." *In re Killington, Ltd.*, 159 Vt. 206, 214 (1992)(citing *In re Green Peak Estates*, 154 Vt. 363, 372 (1990)). Thus, the Board cannot rely upon the facts stated, conclusions drawn, or conditions issued by the Commission regarding the criteria on appeal in this matter.

The Permittees bear the burden of production on each criterion on appeal. *Re: Berlin Associates, #5W0584-9-EB*, Findings of Fact, Conclusions of Law, and Order (Apr. 24, 1990). The Ellsworths bear the burden of persuasion on Criteria 5, 8 and 8(A), 10 V.S.A. § 6088(b), and the Permittees bear the burden of persuasion on Criteria 9(E) and 10, 10 V.S.A. § 6088(a).

B. Criterion 5 (Traffic Safety and Congestion)

Criterion 5 requires that the Project "not cause unreasonable congestion or unsafe conditions with respect to the use of highways" 10 V.S.A. § 6086(a)(5). The opponent bears the burden of persuasion on this Criterion, but the applicant must produce sufficient information from which the Board can make positive findings. *Id.* § 6088(b); *see also, Re: Barre Granite Quarries, LLC, #7C1079 (Revised)-EB*, Findings of Fact, Conclusions of Law and Order at 75 (Dec. 8, 2000). A permit may not be denied solely on the basis of noncompliance with Criterion 5, but the Board may attach reasonable conditions and requirements to the permit to alleviate the related impacts of the Project. 10 V.S.A. § 6087(b).

The Project will not cause unreasonable congestion or unsafe traffic conditions. The Project would result in a maximum of 12 additional vehicle trips per day on a state

aid highway which already has 660 vehicle trips per day on average, an increase of approximately 2%. This hardly amounts to unreasonable congestion.

There is no indication that the section of Route 35 near the Project site is dangerous. In fact, Permittees have submitted information indicating that the roadway does not experience a particularly high number of accidents. The road is fairly flat and straight for some distance near the Project site, allowing for generous sight distances in either direction, approximately 500 feet in each direction from the Project driveway to the north and south on Route 35. There is no reason to believe that this Project will create a safety hazard for vehicles coming to and from the quarry, or to vehicles traveling by the quarry on Route 35.

The Board concludes, therefore, that the Project complies with Criterion 5.

C. Criterion 8 (Aesthetics)

Before issuing a permit, the Board must find that the Project "[w]ill not have an undue adverse effect on the scenic or natural beauty of the area, aesthetics, historic sites or rare and irreplaceable natural areas." 10 V.S.A. § 6086(a)(8). The burden of proof is on the opponents under Criterion 8, *id.* § 6088(b), but the applicant must provide sufficient information to the Board to make affirmative findings. *Re: Barre Granite Quarries, LLC, #7C1079* (Revised)-EB, Findings of Fact, Conclusions of Law, and Order at 78 (Dec. 8, 2000) (citing, *e.g.*, *Re: Black River Valley Rod & Gun Club, Inc., #2S1019-EB*, Findings of Fact, Conclusions of Law, and Order (Altered) at 19 (June 12, 1997)).

The Board uses a two-part test to determine whether a project satisfies Criterion 8 (aesthetics). First, it must determine whether the project will have an adverse aesthetic effect under Criterion 8. *Barre Granite*, Findings, Conclusions and Order at 79 (citing *Re: James E. Hand and John R. Hand, d/b/a Hand Motors and East Dorset Partnership, #8B0444-6-EB* (Revised), Findings of Fact, Conclusions of Law, and Order at 24-25 (Aug. 19, 1996); *Re: Quechee Lakes Corp., #3W0411-EB and #3W0439-EB*, Findings of Fact, Conclusions of Law, and Order (Nov. 4, 1985)). Second, it determines whether the adverse effect, if any, is undue. *Barre Granite*, Findings, Conclusions and Order at 79 (citing *Hand*, Findings, Conclusions and Order at 24; *Quechee Lakes*, Findings, Conclusions and Order at 17-20). As set forth herein, the Board concludes that the adverse effect caused by the Project is not undue.

1. Adverse Effect

To determine whether a project will have an adverse aesthetic effect under Criterion 8, the Board examines "among other things, the types and density of land uses presently in existence, the type of topography, and whether the area has particular scenic value," as well as "an evaluation whether certain impacts, such as the

amount of dust or level of noise generated by a given activity, 'fits' within the context of its surroundings." *Re: Talon Hill Gun Club and John Swington, #9A0192-2-EB*, Findings of Fact, Conclusions of Law, and Order at 9 (June 7, 1995). If a project "fits" its surroundings and context, it will not have an adverse aesthetic effect. *Re: Herndon and Deborah Foster, #5R0891-8B-EB*, Findings of Fact, Conclusions of Law, and Order at 12 (June 2, 1997) (citing *Quechee Lakes*); *Talon Hill*, Findings, Conclusions and Order at 9; *see also, Re: McDonald's Corp., Rutland, Vermont*, Findings of Fact, Conclusions of Law, and Order at 18 (Dec. 7, 2000) (citing *Hand*, Findings, Conclusions and Order at 25).

The area surrounding the Project is characterized by dense mixed hardwood and softwood forest on steep, hilly terrain. The quarry is on the site of an ancient rockslide, with large blocks of stone all about, covered with dirt, decayed leaves and moss, occasional plants, shrubs, and trees. It already is somewhat different from its more heavily forested surroundings. However, the Project will require removal of all trees and vegetation that have managed to grow on these rocks, opening the area further and exposing much lighter-colored rock. There will be obvious human activity on the site, where there is none in the surrounding area. Travelers on Route 35 adjacent to the quarry will be able to view the Project as they pass by.

Also, the Project will generate noise. Permittees propose to use two pieces of heavy equipment, a large diesel dump truck with a radar-activated backup alarm, and a backhoe or excavator which will at times be equipped with a drill. This noise will be audible to passers by and neighbors when the quarry is in operation.

Permittees' witness Christopher Dunn testified about the application of ANR's "Scenic Resource Evaluation Process" in this case. The Board expressly rejected the use of such evidence in another case, *Re: Vermont RSA Limited Partnership d/b/a Bell Atlantic Mobile*. In that decision, the Board concluded that such evidence was "inaccurate and erroneous," and held that ANR's Scenic Resource Evaluation Process, "is not the applicable standard to determine compliance with Criterion 8." *Re: Vermont RSA Limited Partnership d/b/a Bell Atlantic Mobile*, Findings of Fact, Conclusions of Law, and Order, at 17 (Aug. 21, 1998). While such a scenic evaluation may be used as evidence within the *Quechee Lakes* analysis, a conclusion under ANR's scenic evaluation process is not tantamount to a conclusion under the applicable *Quechee Lakes* standard.

Criterion 8 "was not intended to prevent all change to the landscape of Vermont or to guarantee that the view a person sees from her property will remain the same forever." *Re: Okemo Mountain, Inc., #2S0351-8-EB*, Findings of Fact, Conclusions of Law, and Order at 9 (Dec. 18, 1986). Criterion 8 was intended to ensure that as development occurs, reasonable consideration will be given to the visual impacts on neighboring landowners, the local community, and on the special scenic resources of Vermont. *Re: Horizon Development Corp., #4C0841-EB*, Findings of Fact,

Conclusions of Law, and Order (Aug. 21, 1992). Nevertheless, projects that result in the loss of open space and the alteration of vistas can have an adverse effect on aesthetics and scenic beauty. See e.g., *Re: Thomas W. Bryant and John P. Skinner*, #4C0795-EB, Findings of Fact, Conclusions of Law, and Order at 21 (June 26, 1991); see also *Re: Maple Tree Place Associates*, #4C0775-EB, Findings of Fact, Conclusions of Law, and Order at 48-49 (June 25, 1998); *Re: George, Mary, and Rene Boissoneault*, #6F0499-EB, Findings of Fact, Conclusions of Law, and Order at 19 (Jan. 29, 1998).

The Project represents a significant departure from existing land uses in the surrounding area. It will be visible and audible to residents and the traveling public, and will generate noise, traffic and dust. Because the Project will not be in harmony with its surroundings the Board concludes that it will create an adverse aesthetic impact.

2. Undue

If the Board concludes that the proposed Project will have an adverse effect under Criterion 8, the Board must evaluate whether the adverse effect is "undue." *Hand*, Findings, Conclusions and Order at 25. The Board will conclude that the adverse effect is undue if it reaches a positive finding with respect to any one of the following factors:

- a. Does the project violate a clear, written community standard intended to preserve the aesthetics or scenic beauty of the area?
- b. Does the project offend the sensibilities of the average person? Is it offensive or shocking because it is out of character with its surroundings or significantly diminishes the scenic qualities of the area?
- c. Has the applicant failed to take generally available mitigation steps which a reasonable person would take to improve the harmony of the project with its surroundings?

See, e.g., *Black River*, Findings, Conclusions and Order at 19-20, *Hand*, Findings, Conclusions and Order at 25-29; *Quechee Lakes*, Findings, Conclusions and Order at 19-20.

Clear, Written Community Standard

With respect to the first factor, the Board concludes that there is no applicable clear, written community standard intended to preserve the aesthetics or scenic beauty of the area that would be violated. The Project site is not designated in an area set aside for scenic preservation, and the Regional Plan, Town Plan and Zoning

Regulations do not prohibit quarrying activities or mining. To the contrary, the Town Plan states that the "mining of talc and other mineral deposits . . . within the Town of Chester should be encouraged," subject to reasonable safeguards against "the potential nuisances and hazard of these activities." Town Plan, at 6 § 7.5 (Mineral Deposits).

The Zoning Regulations provide for Planning Commission review of quarry plans, a 100-foot setback, and require quarries to be covered with at least four inches of topsoil, seeded with a suitable cover crop, except when ledge rock is exposed. Zoning Regulations at 8-9 §§ 3.15-3.16. The Planning Commission approved this Project, and the Project is permitted in a manner consistent with the Zoning Regulations.

The Regional Plan lists Chester as a town in which granite, marble and soapstone were mined historically, and encourages minimization of aesthetic impacts as well as the full reclamation, revegetation and rehabilitation for aesthetic and other purposes. Regional Plan at 73, Mineral Resource Policies 2 and 3. As discussed in more detail below, Permittees are taking steps to mitigate the adverse aesthetic impacts of the quarry before and during its operation, and in its reclamation.

Shocking or Offensive; Generally Available Mitigating Steps

With respect to the second and third factors, the Board concludes that the Project as permitted here will not offend the sensibilities of the average person, and that the Permittees have taken generally available mitigating steps which a reasonable person would take to improve the harmony of the Project with its surroundings.

The Project's aesthetic impacts will be mitigated such that it will not be shocking or offensive to the average person. For instance, there are strict limitations on the quarry's operations. The stone removal area is limited to an area of approximately one acre. Extraction is limited to a maximum of 80 tons or four truckloads of stone per day during the operating season, for a maximum of 4,000 tons per season. The quarry can only operate for up to 50 days per year, between May 1st and December 15th, and operations may take place only on Mondays through Fridays from 8:00 a.m. to 4:30 p.m. There can be no operation on weekends or federal holidays.

Unlike larger quarrying operations, the Project will involve no buildings, structures, utilities, lighting or signage, and no on-site storage of refuse or quarried stone. The stone will be trucked off-site immediately, and will not be processed or stockpiled on the Project site. The Permittees will use a maximum of two pieces of heavy equipment: a backhoe or excavator similar in size to a Samsung SE 130, and a 10-wheel diesel dump truck to haul the stone. Permittees will maintain the mufflers on both pieces of equipment, and will ensure that the dump truck is equipped with a radar-

activated backup alarm. Permittees may use a drill attachment on the backhoe or excavator, but there will be no blasting.

Permittees will keep the area around the quarry as densely forested as possible, and will maintain a 100' vegetated buffer between the quarry and Route 35. Trees and other screening vegetation will be planted before Permittees commence any additional quarrying activity, and will be maintained during the quarry's operation. Stone walls will be erected to help shield the quarry from view, and Permittees will use the older, darker stone for the rock walls. At the end of the permitted quarrying period, Permittees will reclaim the site with various plantings and plant the access road and staging area with trees, and use large boulders to block the access road from Route 35.

With respect to noise, Permittees propose to abide by the limits the Board established in *Re: Barre Granite Quarries, LLC, #7C1079 (Revised)-EB*, Findings of Fact, Conclusions of Law, and Order (Dec. 8, 2000) for noise at the nearest residences. In *Barre Granite*, the Board found that noise from a quarry would not be undue as long as it would "not exceed 70 dB(A) Lmax at the Project boundary and 55 dB(A) Lmax outside any residence or area of frequent human use." *Barre Granite*, Findings, Conclusions and Order at 80-81; see also, *Re: Charles and Barbara Bickford, #5W1186-EB*, Findings of Fact, Conclusions of Law, and Order at 33 (May 22, 1995) ("Interference with activity and annoyance will occur if outdoor noise levels exceed 55 dB."). As the Board stated in *Re: Cersosimo, #2W0813-3 (Revised)-EB*, Findings of Fact, Conclusions of Law, and Order (Apr. 19, 2001):

at least within the context of a Criterion 8 analysis, the Board has established "unduly adverse" levels of 55 dB(A) Lmax at residences, and in the case of the *Barre Granite Quarries* decision, at any "area of frequent human use," which could, in some cases, be up to the quarry's property line.

Cersosimo, Findings, Conclusions and Order at 9 (finding noise provision in town plan based on 'annoyance' more restrictive than noise-related requirements of Criterion 8)(citations omitted).

Consistent with this precedent, the Board concludes that noise from the Project will not create an undue adverse aesthetic effect if it is limited to 55 dB(A) Lmax at any area of frequent human use. Currently, the only areas of frequent human use near the Project are residences.

In some cases, the Board has set noise limits for property boundaries, as well as for nearby residences. See, e.g., *Barre Granite*, Land Use Permit #7C1079 (Revised)-EB, Condition 10 (Dec. 8, 2000) (limiting noise to 70 dB(A) Lmax at the project boundary). However, while sound levels at the quarry's property boundaries have some bearing on sound levels on neighboring lands, "what the neighbors will actually hear will depend on a range of factors, including their distance from the quarry

operations, the topography of the land and the density of the vegetation." *Cersosimo*, Findings, Conclusions and Order at 10 (citing *Re: Bull's Eye Sporting Center and David and Nancy Brooks, et al.*, #5W0743-2-EB (Altered)(Revocation), Findings of Fact, Conclusions of Law, and Order at 10 (June 23, 2000)). As in *Cersosimo*, the Board sees no need to limit noise at the quarry's property lines when it has limited noise at the nearest residences, "the more essential receptor points." *Id.* (discussing noise in the context of a Criterion 10 analysis).

While the Project will have some adverse impact on aesthetics and the scenic or natural beauty of the area, this impact will not be undue given the relatively small size and scope of the Project and the mitigating conditions in the Board's permit. The Board concludes that this Project complies with Criterion 8, aesthetics.

D. Criterion 8(A) (Necessary Wildlife Habitat)

Criterion 8(A) requires denial of an Act 250 permit to any development or subdivision that "will destroy or significantly imperil necessary wildlife habitat or any endangered species," and that:

- (i) the economic, social, cultural, recreational, or other benefit to the public from the development or subdivision will not outweigh the economic, environmental, or recreational loss to the public from the destruction or imperilment of the habitat or species, or
- (ii) all feasible and reasonable means of preventing or lessening the destruction, diminution, or imperilment of the habitat or species have not been or will not continue to be applied, or
- (iii) a reasonable acceptable alternative site is owned or controlled by the applicant which would allow the development or subdivision to fulfill its intended purpose.

10 V.S.A. § 6086(a)(8)(A)(i)-(iii). The Ellsworths bear the burden of persuasion on this criterion, *id.* § 6088(b)(opponent bears burden of proof on Criterion 8(A), but the Permittees bear the burden of producing sufficient evidence from which the Board may make affirmative findings).

Criterion 8(A) involves a three-stage inquiry: (a) whether the alleged habitat constitutes "necessary wildlife habitat"; (b) if so, whether the project will destroy or significantly imperil such habitat; and (c) if so, whether one or more of subcriteria (i) through (iii) is satisfied. *Re: Mark and Pauline Kiesel*, #5W1270-EB, Findings of Fact,

Conclusions of Law, & Order (Altered) at 37 (Aug. 7, 1998), *rev'd on other grounds, In re Kiesel* 11 Vt.L.W. 401 (Dec. 29, 2000).

Necessary Wildlife Habitat

"Necessary wildlife habitat' means concentrated habitat which is identifiable and is demonstrated as being decisive to the survival of a species of wildlife at any period in its life including breeding and migratory periods." 10 V.S.A. § 6001(12); *see also, Re: Bernard and Suzanne Carrier*, #7R0639-EB, Findings of Fact, Conclusions of Law and Order at 18 (Oct. 5, 1990); *Re: Southview Associates*, #2W0634-EB, Findings of Fact, Conclusions of Law and Order at 7-9 (June 30, 1987), *aff'd In re Southview Associates*, 153 Vt.171 (1989); *Re: Nile and Julie Duppstadt & John and Deborah Alden*, #4C1013-EB, Findings of Fact, Conclusions of Law, and Order (Corrected) at (April 30, 1999).

Deeryard - Area West of the Ridge

The Board concludes that the one-acre quarry site itself is not in necessary wildlife habitat. Next, the Board considers whether there is any necessary wildlife habitat near the quarry that could be impacted by the Project. *See, Re: Nile and Julie Duppstadt*, Findings of Fact, Conclusions of Law, and Order at 25 ("it is possible that a Project could significantly imperil necessary wildlife habitat by virtue of its close proximity to the habitat"). Based on the testimony of Permittees' expert witness, the Board finds that there is necessary wildlife habitat on the Project tract, a winter deeryard, to the west of the ridge above the quarry site. There is no evidence, however, that the quarry will impact this deeryard.

Bobcat - Area West of the Ridge

It is also clear that the extensive habitat to the west of the site, opposite the ridge, is excellent bobcat habitat as it provides life requisites for all seasons. But again, there is no evidence that noise from the quarry will have any significant impact on the area beyond the ridge. Also, as set forth below, there is insufficient evidence that this or any other bobcat habitat on the Project site is decisive to the survival of the bobcats who use it.

Bobcat - Ledge Directly West of the Quarry

The Ellsworths claim that the ledge directly west of the quarry is necessary bobcat habitat. To be considered "necessary" under Criterion 8(A), wildlife habitat must be concentrated, identifiable, and decisive to the survival of the species "at any period in its life including breeding and migratory periods." 10 V.S.A. § 6001(12). The Board is persuaded that the ledge is concentrated and identifiable bobcat habitat, but

concludes that the Ellsworths have failed to meet their burden of proving that the ledge habitat is decisive to the bobcats' survival.

There is no dispute that one or two bobcats use the ledge for hunting and temporary shelter, and that the ledge provides the bobcat with its life requisites: cover, potential den sites, and ready access to prey, at least during the winter. Also, ANR has identified and mapped the ledge as potential bobcat habitat. The Board finds that a bobcat or two may use the ledge for denning, at least during the winter.²

However, bobcats are stealthy creatures and conclusive evidence on the nature and extent of their use of the ledge has not been provided, particularly evidence on the ledge as denning habitat. Nor has conclusive evidence been provided on the likely impact of loss of such habitat on the survivability of the bobcats.

Permittees have shown that bobcats are known to use fallen trees and other non-ledge areas for denning, and that such suitable bobcat den sites are available in the vicinity of the Project. This does not negate the facts that this ancient rock landslide exists only on the Project site, and that the ledge therefore offers unique denning opportunities to one or two bobcats. Also, under Criterion 8(A), the availability of other habitat has no bearing on whether the habitat in question is "necessary." *In re Southview Associates*, 153 Vt. 171, 177 n.3 (1989) (noting that ability of deer to move to another deeryard does not render the impacted area unnecessary to their survival); *see also, Re: Luce Hill Partnership, #5L1055-EB*, Findings of Fact, Conclusions of Law, and Order at 4-8 (Jul. 7, 1992) (finding that 30-acres of 800-acre deer wintering area was necessary wildlife habitat despite existence of remaining 770 acres). The fact that there may be other suitable habitat for bobcat in the area of the Project does not affect the Criterion 8(A) analysis.

In order to be considered "necessary" habitat, the ledge must be decisive to the survival of the bobcats that use it. *Re: Southview Associates, #2W0634-EB*, Findings of Fact, Conclusions of Law, and Order at 6 (Jun. 30, 1987), *aff'd, In re Southview Associates*, 153 Vt. 171 (1989); *Re: White Sands Realty Company, #3W0360-1-EB*,

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Habitat doesn't have to be decisive to survival year-round to be "necessary." *Northeast Land Investment, Inc., #2W0036-4-EB*, Findings of Fact, Conclusions of Law, and Order, at 9 (Jun. 20, 1991) (discussing deer wintering yard and citing *Re: Killington, Ltd., #1R0584-1-EB-1* (Part II) and *#1R0593-1-EB* (Part I), Findings, Conclusions and Order at 19 (May 11, 1989); *Re: Southview Associates, #2W0634-EB*, Findings, Conclusions, and Order at 3, 9 (Jun. 30, 1987), *affirmed, In re Southview Associates*, 153 Vt. 171, 175-178 (Dec. 1, 1989)). Thus, the failure to prove that bobcats use the ledge on a year-round basis is not determinative here.

Findings of Fact, Conclusions of Law, and Order (Feb. 25, 1982). ANR has not completed its mapping of necessary bobcat habitat in the state, as it has bear and deer habitat. Citing a dearth of scientific information on the issue, ANR's wildlife biologist Kim Royar was unable to state conclusively that such habitat is decisive to the survival of the bobcats. For instance, it is not known whether and to what degree bobcats prefer the ledge over other potential den sites, and it is not known whether this type of den habitat offers reproductive benefits to the bobcat.

Also, there are no studies to show that habitat loss will have any significant adverse effect on bobcats, as shown in studies of deer, for instance. This is through no failure of the parties, who put on thorough and extensive cases. This is simply a reflection of the current state of scientific information available on this issue. As a result, the Board is not persuaded that the ledge constitutes necessary wildlife habitat. Thus, the Board does not reach the issues of whether any such habitat would be destroyed or significantly imperiled by the Project, or whether the Project would meet the requirements of the subcriteria.

This Project, therefore, complies with Criterion 8(A).

E. Criterion 9(E) (Extraction of Earth Resources)

In relevant part, Criterion 9(E) requires that the Board make the following findings before issuing a permit for the extraction or processing of mineral and earth resources:

- (i) . . . that, in addition to all other applicable criteria, the extraction or processing operation and the disposal of waste will not have an unduly harmful impact upon the environment or surrounding land uses and development; and
- (ii) upon approval by the district commission or the board of a site rehabilitation plan which insures that upon completion of the extracting or processing operation the site will be left by the applicant in a condition suited for an approved alternative use or development.

10 V.S.A. § 6086(a)(9)(E). The burden of proof is on the applicant under Criterion 9(E). *Id.* § 6088(a).

Criterion 9(E) embodies two key provisions. First, earth extraction and processing projects may not cause undue harm to the environment or neighboring land uses. The Board considers Criterion 9(E) to include and go beyond aesthetic impacts, to encompass interference with enjoyment of the land and to seek to prevent such interference from becoming undue. *Re: John and Marion Gross d/b/a John Gross*

Sand and Gravel, #5W1198-EB Findings of Fact, Conclusions of Law, and Order at 16 (April 27, 1995).

Second, extraction projects must have a site rehabilitation plan for restoring the disturbed land after extraction, which should include reclaiming the land and also preparing it for another use. *Gross*, Findings, Conclusions and Order at 16. Permittees have not submitted a comprehensive reclamation plan other than the information submitted with the application. This consists of a statement on the application that, to prevent unduly harmful impacts associated with the extraction of mica schist stone:

Storm water runoff is being controlled with with [sic] retention ponds; the exposed slopes are being replanted with trees in the stone crevasses and when the quarry is closed, the staging areas and quarry road will be replanted. The access driveway will be sealed off with large stone slabs. Extraction and reclamation plans have been sent to the State Geologist for his comments and recommendations. See Attachment 9D&E - 3.

Attachment 9D&E-3 is a letter dated July 29, 1999 from Alan Regier to State Geologist Laurence Becker, referring to enclosed information on the quarry: "I have included a general statement, location map, survey, site plan and answers to the Act 250 Criteria questions." There is no indication on the record whether Mr. Becker ever responded, and if so, how.

In addition, Permittees do not propose to place funds in escrow to cover the costs of reclamation.

Given the current operation plan, after the quarrying is complete in 25 years, much of the quarry site will be steeply sloping, exposed rock. It is difficult to see how trees could be planted in such terrain. However, the Permittees should replant as much of the site as possible, consistent with the requirements of the Regional Plan, zoning regulations and the Planning Commission's Conditional Use Determination. In addition to the proposed evergreen tree plantings and other reclamation plans, the Board finds that further reclamation efforts will be necessary to comply with Criterion 9(E). Permittees should restore the site as nearly as possible to its original state, with large rocks on the quarry floor interspersed with mixed soft and hardwoods, and naturally occurring shrubs and plants, such as ferns and moss, amongst the rocks. This will help the site fit in better with the surrounding forests, would furnish better habitat for wildlife, and would be more consistent with local and regional land use policies, as discussed herein.

Criterion 9(E) requires that there be a "site rehabilitation plan which insures that upon completion of the extracting or processing operation the site will be left by the applicant in a condition suited for an approved alternative use or development." 10

V.S.A. § 6086(a)(9)(E)(ii). In addition, Act 250 expressly authorizes the Board to require that a bond be filed to insure compliance. 10 V.S.A. § 6086(c).

In *Bickford*, the Board held that imposition of a \$100,000 bond requirement upon a quarry was reasonable, stating that: "The requirement of a bond brings certainty to this Project -- there will be funds available to ensure that the Project is properly completed and that the Project Site is reclaimed, regardless of who owns or operates the Project." *Bickford*, Findings, Conclusions and Order at 27. The Board noted that it required a \$50,000 bond and a \$100,000 escrow account in another quarry case, *Re: Starksboro Sand and Stone*, to ensure compliance. *Bickford*, Findings, Conclusions and Order at 27 (citing *Re: Starksboro Sand and Stone Company, Inc.*, # 9A0082-1 (Reconsideration), Findings of Fact, Conclusions of Law, and Order (Aug. 6, 1987)). Because Criterion 9(E) requires that the site rehabilitation plan "insure" adequate reclamation upon completion of quarrying operations, a bond or escrow requirement, or both, may be appropriate. The Board concludes that it is necessary to require that Permittees put money into escrow for reclamation purposes, to insure compliance with Criterion 9(E).

No evidence was submitted regarding the cost of reclamation or how Permittees' plan to "insure" reclamation, consistent with Criterion 9(E). However, in another recent Board case involving a rock quarry, the applicant agreed to place \$15,000 per year into escrow, and to guarantee any additional reclamation costs. *Barre Granite*, Findings, Conclusions and Order at 88. The quarry in *Barre Granite* covered an area of 12 square acres and involved storage of extraction wastes on-site, as well as quarrying quantities several magnitudes of order in excess of those proposed here. *Id.* at 9-12. The *Barre Granite* escrow requirement averages out to \$1,250 per year per acre, but this amount includes reclamation elements not present in this case. For instance, there are no buildings or waste to be removed and no large grout piles to be reclaimed. While the reclamation needs of the quarry in question are less substantial in quality and quantity than those involved in *Barre Granite*, the \$1,250 per acre figure provides a baseline.

Most of the Project's reclamation needs will be incurred early in the life of the quarry, in part due to the relatively small size of the quarry. This is not a project involving a gradual expansion of quarrying and related activity over several acres of land. Instead, much of the area of this quarry is physically disturbed now or will be soon after quarrying activity resumes. Given the facts in this case, it is reasonable to frontload the escrow funding requirement to ensure compliance with Criterion 9(E). The Board, therefore, will require that Permittees set up an interest-bearing escrow account for reclamation purposes and make annual deposits as follows: \$2,000 per year for the first 5 years of operation, and \$1,000 per year for each remaining year of operation. Deposits shall be made on or before the last date of each operating season, with the first payment due on or before December 15, 2002. Consistent with *Barre Granite*, the Board concludes that it is in the best interest of public health, safety and

welfare for the Commission to have sole control over disbursement of funds from the escrow account, *Re: Barre Granite Quarries, LLC*, Chair's Ruling on Preliminary Stay, at 5-7 (Apr. 13, 2000). Permittees shall certify to the Commission that the escrow account has been established in accordance with these requirements by January 15, 2003. At the end of quarrying operations, the funds in the escrow account will be applied toward the costs of reclamation. Permittees are responsible all reclamation costs, including any costs not covered by the escrow account.

As in *Bickford*, this requirement that money be set aside to cover the costs of reclamation is necessary to ensure compliance with Criterion 9(E). As in *Barre Granite*, however, the Board is requiring annual contribution to an escrow account over the life of the quarry rather than immediate posting of a bond in a much larger amount. Also, the escrow requirement is frontloaded here, consistent with the Permittees' plans for physical disturbance of the Project site. With these conditions, the Board concludes that the Project will comply with Criterion 9(E).

F. Criterion 10 (Southern Windsor County Regional Plan)

Permittees bear the burden of proving that the Project is in conformance with applicable Town and Regional Plans. 10 V.S.A. § 6086(a)(10); *see also, id.* § 6088(a)(burden of proof for Criterion 10 is on applicant). In this case only the Southern Windsor County Regional Plan is at issue; no party has alleged any conflict with any town plan.

With respect to the role of regional plans in Act 250 proceedings, Title 24 of the Vermont Statutes provides:

In proceedings under 10 V.S.A. chapter 151 . . . in which the provisions of a regional plan or municipal plan are relevant to the determination of any issue in those proceedings:

1. the provisions of the regional plan shall be given effect to the extent that they are not in conflict with the provisions of a duly adopted municipal plan;
2. to the extent that such a conflict exists, the regional plan shall be given effect if it is demonstrated that the Project under consideration in the proceedings would have a substantial regional impact.

24 V.S.A. § 4348(h).

To determine whether a proposed development or subdivision complies with a regional plan, the Board first looks to whether there are pertinent provisions in the plan which evince a specific policy. A provision evinces a specific policy if it:

1. pertains to the area or district in which the project is located;
2. is intended to guide or proscribe conduct or land use within the area or district in which the project is located; and
3. is sufficiently clear to guide the conduct of an average person, using common sense and understanding.

Barre Granite, Findings, Conclusions and Order at 90 (citing *Duppstadt*, Findings, Conclusions and Order at 45; *Re: Herbert and Patricia Clark*, Application #1R0785-EB, Findings of Fact, Conclusions of Law and Order at 40 (April 3, 1997); *Mirkwood*, Findings, Conclusions and Order at 29).

If there are no specific provisions in the regional plan which apply to the project, then the project complies with Criterion 10 (regional plan). *Kiesel*, Findings, Conclusions and Order (Altered) at 47, *rev'd on other grounds, In re Kiesel*, 11 Vt.L.W. 401 (Dec. 29, 2000).

The Board concludes that there is no specific provision of the Regional Plan that is intended to proscribe conduct or land use on the Project site. To the extent that policies in the Regional Plan may be intended to guide such land use or conduct, the Board finds that the Project will be consistent with the goals expressed in these aspirational policies, given Permittees' mitigation steps and additional conditions imposed by the Board. In sum, there are no specific mandates or prohibitions in the Regional Plan that would be violated by the Project. In addition, the Board notes that the Regional Planning Commission approved the Project in a site plan review. Based on these conclusions and the Board's independent review, the Project as proposed and conditioned will comply with the Regional Plan.

G. Validity of Permit Conditions and Permittees' *Stonybrook* Claim

Permittees argue that Conditions 8 and 9 of the Permit should be invalidated as unreasonable. The conditions provide as follows:

8. Prior to engaging in any forest management activities, including logging operations and/or firewood cutting on the tract of land, the Permittees shall submit a forest management plan for review and receive approval of the plan by the District 2 Environmental Commission.

9. No subdivision, alteration and/or further development shall be permitted without the written approval of the District 2 Environmental Commission.

Act 250 authorizes reasonable permit conditions: "A permit may contain such requirements and conditions as are allowable proper exercise of the police power and which are appropriate with respect to (1) through (10) of subsection (a). . . ." 10 V.S.A. § 6086(c). To constitute a proper exercise of the Commission's police power, a condition must bear a rational nexus to actual or potential impacts under Act 250.

The first challenged condition requires Commission approval of a forest management plan before Permittees engage in any logging, firewood cutting, or other forest management activity on the 644-acre Project tract. Much of the Project site outside the quarry is densely forested, and the Permittees propose to keep the surrounding lands densely forested to the maximum extent possible. Should Permittees propose to engage in any logging, firewood cutting, or other forest management activity on the Project's involved land, it may have impacts under Act 250.

Permittees' own expert witness testified that there is necessary wildlife habitat, a deer wintering yard, on the land to the west of the quarry site, and that this habitat would not be impacted by the proposed quarrying activity. While the bulk of the wildlife-related evidence in this case focused on bobcat, the Board cannot ignore the fact that at least some of the Project lands beyond the immediate vicinity of the quarry provide winter shelter for deer. In addition, the Board's conclusion that noise from the quarry will not cause an undue aesthetic impact is based in part on the finding that much of the involved land is densely forested and serves as a noise buffer, as noted above. Permittees have not proposed any forest management plan for the 644 acres of involved land. Therefore, the condition in question allows Permittees some degree of flexibility on the tract of involved land, while helping protect natural resources and other values recognized under Act 250. The Board concludes that this condition is rationally related to Act 250 impacts in general, and specifically, from the quarry.

The second challenged condition requires Permittees to obtain written approval from the Commission for any subdivision, alteration, and/or further development on the 644-acre Project tract. This is fairly standard permit language, *see, e.g., Re: Munson Earth-Moving Corporation, Land Use Permit #4C0986-EB, Condition 44* (Sept. 15, 1999), and serves to ensure compliance with the requirement in EBR 34 that no substantial or material change be made in a permitted project without a permit amendment. Condition #2 of the Permit contains similar language, and requires that Permittees obtain the written permission of "the District Coordinator or the District Environmental Commission, whichever is appropriate," for any change to the design or use of the Project. Permittees' challenge focuses not on the requirement of prior written approval so much as the application of the requirement to all 644 acres of involved land.

Permittees contend that there is no nexus between the quarry operation and the lands currently owned by ADA Chester Corporation and Ugo Quazzo, and seek a ruling to reduce the scope of the permitted project. See, *Re: Stonybrook Condominium Associates, Inc.*, Declaratory Ruling #385, Findings of Fact, Conclusions of Law, and Order (May 18, 2001); see also, EBR 34 (requiring permit amendment for material or substantial change to the permitted project). In particular, Permittees request a ruling limiting the permitted project to the 21.6-acre parcel on which the quarry sits, a significant reduction from the 644 acres of involved land. Permittees cite the Board's *Stonybrook* decision in support of this request.

In *Stonybrook*, the Board held that the razing of an historic farmhouse constituted a substantial change to a permitted condominium project, such that an amendment application was required. In reaching this conclusion, the Board considered whether the farmhouse was part of the permitted project and found that it was. As a general rule the permitted project extends to all of the involved land, but where this would lead to absurd or inequitable results, the scope of the permitted project may be limited. The Board gave the example of installation of a telecommunications antenna on a silo on a large farm, and stated that, "Clearly, under this scenario, were the permittee able to establish that its construction has no, or only limited, impacts beyond those caused by the actual construction itself, the definition of 'permitted project' should be tempered by reason and reality." With regard to the process for limiting the scope of the permitted project, the Board stated that:

The Board recognizes that delineating such boundaries will require a careful evaluation . . . of the natural resources on the project tract and of the actual impacts or effects created by the project on those resources. It may also require the permittee to present . . . a survey and other evidence which accurately establish the extent of such impacts or effects. For all the reasons stated in the *Blodgett* case, it is apparent that in many instances it will be neither an easy nor inexpensive task to define a project's nexus areas, and the Board can foresee that a permittee's attempt to limit the area of its "permitted project" may be subject to challenge by others and form the basis for appeals to the Board which might not otherwise be taken. Nonetheless, should a permittee choose to follow this route, recognizing that it must bear the burden of proving the extent of its project and its impacts, the Board concludes that there may be instances in which restricting the scope of the "permitted project" to something less than the entire tract will result in a fair and reasonable approach to this issue.

Stonybrook, Findings, Conclusions and Order at 19 (footnote omitted).

In holding that razing the historic farmhouse was part of the permitted project, the Board in *Stonybrook* noted that:

[O]nce a parcel of land is brought within an Act 250 project for any reason, it should be entitled to all of the protections that Act 250 affords, not only those which arise out of the reason it was initially included. For example, if a parcel of land were to be preserved as open land for aesthetic purposes under Criterion 8, and were it later to be discovered that endangered birds lived in it, those birds should be protected by Act 250. Thus, merely because the Spear Farm lands were referred to within a discussion of Criterion 9(B) (primary agricultural soils), this does not mean that an historic site on those lands cannot be protected under Criterion 8.

Stonybrook, Findings, Conclusions and Order at 20 n.13.

The Board first notes that the record in this appeal is insufficient to determine the physical extent of the Project's potential impacts under Act 250. For instance, the physical limits of the deer wintering area on the involved land and any related buffer area are not in evidence and there is no quantitative evidence on the amount of forest or other buffer areas needed to keep quarry noise levels down to reasonable levels at the nearest residences. As contemplated in *Stonybrook*, "delineating such boundaries will require a careful evaluation . . . of the natural resources on the project tract and of the actual impacts or effects created by the project on those resources." *Id.* at 19.

More to the point, however, the Board is without jurisdiction to redefine the scope of the permitted project because this issue has not been considered by the Coordinator or Commission. The Board has appellate jurisdiction and lacks authority to decide issues that have not been ruled upon by the district coordinator or commission. *Re: M.B.L. Associates, #4C0948-1-EB*, Findings of Fact, Conclusions of Law, and Order, at 2 (May 4, 1998)(citing *In re Taft Corners Associates*, 160 Vt. 583, 591 (1993); *In re Juster Associates*, 136 Vt. 577, 581 (1978)("[i]nitial consideration of a land use proposal is a function assigned by the Legislature to the District Commission")). The Board does not have jurisdiction to determine whether Permittees are entitled to the relief they seek.

Also, although *Stonybrook* describes this evaluation as being made "by the Coordinator for the District Commission," this evaluation necessarily entails the sort of review that district commissions conduct. A complete review of the nature and extent of Act 250 impacts is necessary before the scope of the permitted project can be limited. *See, Stonybrook*, Findings, Conclusions and Order at 19. The parties are entitled to an opportunity to be heard on these issues, and an evidentiary hearing may be necessary. Such review is within the domain of the district commissions, not the district coordinators. *See, Re: The Stratton Corporation, #2W0519-17(Revised)-EB*, Dismissal Order at 5 (Jan. 10, 2001). Should Permittees seek relief under *Stonybrook*, their request should be heard by the Commission, not decided by the Coordinator for the Commission. To this extent, the Board now modifies *Stonybrook*.

If the Commission were to limit the scope of the permitted project as Permittees propose, the requirements of EBR 34 would apply only to the 21.6-acre parcel. A permit amendment would be necessary to limit the physical scope of permit conditions such as those challenged here.³ Until and unless the permit is amended in that manner, the challenged conditions shall apply to the entire tract of involved land.

H. Permittees' Motion to Dismiss and Objections to Panel's Proposed Decision

In their objections to the Panel's proposed decision, Permittees ask the Board to:

1. Amend the deed references in the Permit to eliminate reference to a particular tract of land.
2. Redefine "the project" to exclude lands across certain roads from the quarry, as not "contiguous."
3. Strike Permit Conditions 8 and 9 as unreasonable.

The Board considers each issue in turn, then rules on Permittees' Motion to Dismiss.

1. Deed References

In their objections to the Panel's proposed decision, Permittees ask the Board to revise the permit to exclude reference to a particular parcel of land. The permit provision in question is highlighted in bold below:

This permit applies to the tract or tracts of land identified in Book 83, Page 46; Book 59, Page 364; **Book 76, Page 449** and Book 70, Page 425, of the land records of the Town of Chester, Vermont, as the subject of deeds to ADA Chester Corporation as grantees; Book 54, Page 12, of the land records of the Town of Chester as the subject of a deed to Ugo Quazzo as grantee; and Book 84, Page 100, of the land records of the Town of Chester, Vermont as the subject of a deed to Alpine Stone Corporation as grantee.

3

With respect to the threshold test established in *Re: Stowe Club Highlands*, #5L0822-12-EB (Jun. 20, 1995), *aff'd* 166 Vt. 33 (1996), for consideration of any permit amendment application, the Board notes that the *Stonybrook* decision constitutes a change in law which would weigh in favor of flexibility.

Permittees claim that the deed referenced at Book 76, Page 449 includes four parcels, the Cahill, Rob Field, Ener, and Mowrey parcels, and that the Rob Field parcel is totally isolated from other project lands, and should be eliminated from the property description. Permittees ask the Board to amend the permit to apply only to parcels one, three and four of the deed in question, and expressly exclude reference to parcel two, the Field parcel.⁴

This issue was neither raised in Permittees' Notice of Appeal nor identified in the Prehearing Conference Report and Order, so it was not addressed during the hearing. The Panel did not take evidence on this issue and Permittees did not submit the deeds or property descriptions into the record. Permittees contend that the Field parcel is "not a parcel shown on Exhibit APP-3, in that it is not a parcel encompassed in the 644 acres." This exhibit is encaptioned "Parcel Locations, Enlargement of Chester Tax Maps." As admitted by the Board, APP-3 shows parcels on a tax map, labeled by hand. The label on the parcel the lower-left of the map reads: "ADA CHESTER CORP. Cahill, Field, Ener & Mowrey Lots." Although this issue was not heard by the Panel, the evidence in this appeal does not support Permittees' claim. To the contrary, APP-3 would indicate that the Field parcel is properly included in the permit. The Board cannot amend the permit as requested.

2. Involved Land/Contiguous Land Issue

Permittees next argue that lands on the opposite side of Popple Dungeon Road and the Stage Road from the quarry are not "contiguous" lands and should not be considered involved land. This argument was also raised in Permittees' Motion to Dismiss. As the Board previously ruled in its Memorandum of Decision in this case, there is a final judgment on the issue of involved land: this issue was addressed in the JOs. The Coordinator found that the Popple Dungeon and Stage roads "are not owned in fee by the Town; these roads are old rights of way over the adjoining lands," and concluded that the lands were contiguous. JO #2-121.1, at 2. No appeal was filed from the JOs, and the Permittees cannot relitigate jurisdictional issues in this permit appeal. See, *Re: Stratton Corp. and Intrawest Stratton Development Corp.*, #2W0519-17(Revised)-EB, Dismissal Order at 4-5 (Jan. 10, 2001)(Board lacks jurisdiction to hear appeal from Commission decision on jurisdictional issue because Coordinator, not Commission, is authorized to issue jurisdictional opinion).

4

Permittees' Objections, at 3. Permittees specifically suggest that the permit be amended to read: "This Permit applies to the tract or tracts of land identified in . . . Book 76, Page 449, Parcels One, Two and Four . . ." The Board assumes that Permittees intended to refer to Parcels One, Three and Four, and that the reference to Parcel Two, the Rob Field Parcel, is a typographical error.

3. Reasonableness of Permit Conditions 8 and 9

The Board adopts the Panel's decision on this issue, and amends it to clarify that *Stowe Club Highlands* should not bar the Commission from considering an amendment application to redefine the scope of the permitted project under *Stonybrook*.

4. Motion to Dismiss

On April 30, 2001 Permittees filed a "Motion for Dismissal for Lack of Jurisdiction," arguing that assertion of Act 250 jurisdiction over all 644 acres of involved land constitutes a jurisdictional defect. While the rule in civil proceedings is that a motion to dismiss for lack of subject-matter jurisdiction may be raised at any time, V.R.C.P. 12(b)(1), Act 250 and corresponding Board rules establish a procedural framework for rulings on jurisdictional issues. As set forth herein, the issue of involved land was addressed in the jurisdictional opinions, which were not appealed. Also, the determination that Act 250 jurisdiction attaches to 644 acres of involved land is not a question of the Board's subject-matter jurisdiction over this appeal. Act 250 jurisdiction properly attaches to the Project; that much is not in dispute. The dispute here has to do with the physical extent of involved land. That very question was addressed by the Coordinator in two jurisdictional opinions, which Permittees never appealed. "Failure to appeal within the prescribed period shall render the jurisdictional opinion the final determination with respect to jurisdiction under this chapter unless the opinion has not been properly served on parties that would be entitled to notice" 10 V.S.A. § 6007(c). Permittees do not claim any failure of service.

The Board declines to reconsider its February 2001 Memorandum of Decision, in which it ruled that the JOs are final.

VI. ORDER

1. The Board takes official notice of certain documents in the District #2 Environmental Commission's file as described in Section III, OFFICIAL NOTICE.
2. Permittees' Motion to Dismiss is DENIED.
3. Land Use Permit #2S1103-EB is issued and amends Land Use Permit #2S1103, issued by the District #2 Environmental Commission on August 15, 2000.
4. The stay issued on November 17, 2000 is VACATED as moot.
5. Jurisdiction is returned to the District #2 Environmental Commission.

DATED at Montpelier, Vermont this 4th day of February 2002.

ENVIRONMENTAL BOARD*

_____/s/Marcy Harding_____
Marcy Harding, Chair
John Drake
George Holland
Samuel Lloyd
W. William Martinez
Rebecca M. Nawrath
Alice Olenick
Nancy Waples**

* Board member Jean Richardson participated in January 16, 2002 deliberations, then recused herself from this case. Board member Nawrath was not present for the January 30, 2002 deliberations, but has reviewed and joins in the Board's decision. Board member Waples was not present for January 30, 2002 deliberations. She has reviewed and joins in the Board's decision, except for Criterion 8(A), on which she dissents as set forth below.

**** DISSENT (Board member Nancy Waples)**

I respectfully dissent from the majority's decision on Criterion 8(A). I am convinced that the ledge behind the quarry is necessary wildlife habitat. It provides one or two bobcats with the seclusion, security, and proximity to prey they require to survive the winter and raise their kittens successfully. This necessary wildlife habitat will be imperiled significantly by the noise and human disturbance from the quarry.

Despite the early state of the scientific data and ANR's mapping program, there is ample evidence that the ledge is decisive to the survival of the bobcats that use it. As the majority acknowledges, it would have been virtually impossible for the parties to have presented the Board with more conclusive evidence on this issue. ANR's expert testified, based on her experience, research, and direct observation, that the impacts of the Project "pose a risk to the long-term survivability of the bobcats using the site." I find this expert's opinion, and other evidence in the record, highly persuasive.

It is undisputed that bobcats breed in late February - early March, bear kittens approximately 62 days later, in late April - early May, and kittens are not weaned for at least two months after birth, in late June - early July. Quarry operations commence on May 15 of each year, just after the kittens are born, and only 100 yards away from the ledge. It does not require conclusive scientific evidence to show that the noise from the heavy equipment, drilling, and the impulse noises from banging and scraping of rock,

will disturb the bobcats at a very vulnerable period in their lives. This is significant imperilment.

The Project also fails the subcriteria because the Permittees have failed to meet their burden of production. *See, Re: Norman R. Smith, Inc. and Killington Ltd., #1R0593-1-EB*, Memorandum of Decision on Motion to Alter, at 1-2 (Dec. 13, 1990)(applicant bears burden of production on subcriteria of Criterion 8(A)). There simply is no evidence to show whether the value of 100,000 tons of mica schist outweighs such significant imperilment of bobcat habitat, or that Permittees applied all feasible and reasonable means of preventing or lessening the impacts on the bobcat habitat, or whether the Permittees own an alternative site that could be quarried. This Project would fail subcriterion (ii) on its merits, since delaying the quarry operations until the kittens were weaned would have been a reasonable way to minimize impact on the bobcat habitat. *See, Re: Mark and Pauline Kisiel, #5W1270-EB*, Findings of Fact, Conclusions of Law, & Order (Altered)(Aug. 7, 1998)(project failed subcriterion (ii) of Criterion 8(A) because it could have been designed to have less impact on the deer wintering area), *rev'd on other grounds, In re Kisiel* 11 Vt.L.W. 401 (Dec. 29, 2000).

Therefore, I would deny this permit.